SciBeh Workshop Hackathons

The goal of a hackathon is to create a product that will address a targeted issue. We define 'product' loosely: it can be anything from an information sheet to a new software–-we leave this up to hackathon facilitators to decide. We are also open to the product changing over the course of the hackathon as part of the creative process. However, we ask that hackathon proposers have an idea of what the product will be, so that there is a structure for participants.

The workshop provides two functional meeting times for hackathon participants. This will be *1-4pm GMT on 9 November* and *6-9pm GMT on 10 November*. You can check what time zone this is for you on the workshop schedule (http://bit.ly/scibehworkshopschedule). During this time, we will host meeting rooms for participants to discuss ideas in real time. We recommend that facilitators use these times to brainstorm, organise, and set targets to be achieved over the week.

We also provide asynchronous communication. Each hackathon will receive its own dedicated communication channel (e.g., Twist (http://www.twist.com) or Google Groups), online whiteboard (Google Jamboard (https://jamboard.google.com/)), and overview page (e.g., HackMD (https://hackmd.io/) or Google Docs). Participants are free to use other tools to communicate, of course. We ask that facilitators keep the HackMD overview page updated.

Hackathons close on Friday, 13 November. Facilitators, please submit links to the product (if applicable) and a short wrap-up video (~5min) detailing what the project set out to do, what was accomplished, and what the next steps (if any) are. We will help to publicise these through the SciBeh Twitter, YouTube, and website.

Got a question about the hackathons? Contact us! (mailto:contact@scibeh.org)

If you have a proposal for a hackathon, please send it to us (or comment here) with the following details:

- Who is the facilitator?
- What issue does the hackathon target?
- What output is envisioned?

Hackathons

1. Combatting COVID-19 misinformation with lessons from climate change denial

Facilitators: Stephan Lewandowsky (http://www.cogsciwa.com/) & Gabe Stein (https://www.knowledgefutures.org/about)

Target issue: The threat posed by climate change and COVID-19 are wildly different – immediate individual-level harm vs. long-term global-level harm – and yet the denialism playbook seems to be working fine in both cases, and there is even evidence that the same players are involved in both issues (see, for e.g., here (https://www.lse.ac.uk/granthaminstitute/news/organisers-of-anti-lockdown-declaration-have-track-record-of-promoting-denial-of-health-and-environmental-risks/) and here (https://bylinetimes.com/2020/10/09/climate-science-denial-network-behind-great-barrington-declaration/)).

Output: The hackathon brought together a number of experts in misinformation, science denial, knowledge management, and philosophy of science who dedicated a few hours during the week of November 9th to work towards the production of three deliverables that are slated for completion by the end of the month. The three deliverables will eventually be integrated in an academic paper, expected to be completed in early 2021. The three deliverables are:

- **New**: A set of brief guides on how to talk to people about misinformation and conspiracy theories more generally. A 3-page graphical summary is available at https://sks.to/countertips (https://sks.to/countertips). And if you want something even snappier, on a single page, we've got two graphical flyers here (http://www.shapingtomorrowsworld.org/wp-content/uploads/2020/12/flyer_toptips_v3.pdf) and here (http://www.shapingtomorrowsworld.org/wp-content/uploads/2020/12/flyer_short_v3.pdf).

- **New**: A collection of expert hints about COVID-19 "denial" and how it can be identified. This deliverable is a video (https://youtu.be/wt9WHQnwi4I) that provides a set of "inoculation" messages against Covid-related conspiracies and other fallacious arguments.

- An exploration of the landscape of legitimate critique of government policies. The deliverable here will be a "map" of the argumentation landscape. There is much about government policies that can be legitimately critiqued, and such legitimate critique does not constitute denial.

- A list of countermeasures to the anticipated anti-vax arguments against a Covid vaccine. The deliverable will be a guidance document, including infographics for health care professionals. (This is slated for release on or around 4 January 2021).

Collaboration tools for this hackathon: Whiteboard (https://jamboard.google.com/d/16Q2olRDdzaCOy4TLHuCI4nEAAl5-dfkaWevZnJWyi-Q/edit?usp=sharing) | Summary page | Google Drive folder for files

(https://drive.google.com/drive/folders/1T_-44NNLyeiAe7nbc6Zrdqk5EC4Cv7vy?usp=sharing) | Google Groups (https://groups.google.com/g/scibeh-covidclimate-hackathon) | Reddit discussion (https://www.reddit.com/r/BehSciAsk/comments/jjk00r/hackathon_climate_denial_and_covid19/)

2. Optimising research dissemination and curation

Hackathon products: Development of Pre-print Review Rubric (https://osf.io/dvwfz/)

"Building reviewing capabilities in a structured way."

Now available (and will continue to be refined):

- Pilot rubric for training assessments pre-prints
- Quality label for research papers, capturing a snapshot with metrics of interest

Next steps:

- Determine best tool to conduct review assessment (possibly Hypothes.is (http://Hypothes.is))
- Test rubric among undergraduate/postgraduate students (currently: Psychology, Business)
- Next-stage development following feedback
- Widen test trial to larger sample / other disciplines

Facilitator: Dawn Holford (mailto:dawn.liuholford@gmail.com)

Target issue: The COVID-19 crisis has seen a sea change in the adoption of openly accessible research outputs (see, for e.g., here (https://blogs.lse.ac.uk/impactofsocialsciences/2020/09/24/covid-19-has-profoundly-changed-the-way-we-conduct-and-share-research-lets-not-return-to-business-as-usual-when-the-pandemic-is-over/) and here (https://wellcome.org/news/open-access-how-covid-19-will-change-way-research-findings-are-shared?utm_source=twitter&utm_medium=o-wellcome)). However, rapid production and sharing of new research is not without its drawbacks. As pre-prints become better cited—not just among researchers, but in the public media (https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30113-3/fulltext)—there is increasing risk of spreading misinformation from unreliable work (e.g., this retracted pre-print (https://www.biorxiv.org/content/10.1101/2020.01.30.927871v2). How do we ensure **reliable** research is rapidly disseminated?

During the hackathon, we will collate the different channels for research dissemination and examine their merits and drawbacks. We will ask what is needed to improve the quality of research that gets shared and cited, both within and outside the research community, and come up with a testable action plan.

Outputs: Our aims are to collectively (1) develop a mindmap of existing research dissemination and curation efforts that assesses their different capabilities, pros and cons; (2) design a 'minimal viable review' process that can help with manage quality standards while keeping pace with the rapid emergence of research; (3) generate a metascience research plan to test and analyse proposed process for viability (e.g., acceptability, functionality), that we can take beyond the hackathon.

Collaboration tools for this hackathon: Whiteboard (http://bit.ly/scibeh-dissem) | Summary page (https://hackmd.io/@scibeh/Hyy1pHZFD/edit) | Twist channel (https://twist.com/a/131368/ch/391924/) | Reddit discussion (https://www.reddit.com/r/BehSciAsk/comments/jjtht2/workshop_hackathon_optimising_research/)

3. ReSearch Engine: Search Engine for SciBeh's knowledge base & beyond

Hackathon products:

- proof of concept of a simple search engine with a topic model: ~~https://still-beach-75211.herokuapp.com~~ now hosted at: https://c19search.scibeh.org/ (https://c19search.scibeh.org/)
- github repo: https://github.com/michip/hypothesis-topic-visualization (https://github.com/michip/hypothesis-topic-visualization)

Facilitator: Stefan Herzog (https://www.stefanherzog.org)

Target issue: To deal with the complex matter that is COVID-19, researchers, policymakers, and other stakeholders need a curated–-even if not yet fully vetted–-overview over the constantly emerging knowledge and discussions, which are scattered across the internet (e.g., preprints, webseminars, studies in progress, #academictwitter discussions (https://twitter.com/hashtag/academictwitter), static and interactive visualizations of results and models, blog posts by researchers, policymakers, and others). To this end, SciBeh has created a living knowledge base (https://www.scibeh.org/#kb) using hypothes.is (https://web.hypothes.is/) annotations. However, the search interface (https://hypothes.is/groups/Jk8bYJdN/behsci) is designed to search for annotations and not to search the underlying documents.

Output: This hackathon will create a search engine for this knowledge base (https://www.scibeh.org/#kb) to make it more useful for researchers, policymakers, and other stakeholders.

Other information: See this blog post (https://featuredcontent.psychonomic.org/boosting-covid-19-related-behavioral-science-by-feeding-and-consulting-an-eclectic-knowledge-base/) for an in-depth description of the knowledge base (https://www.scibeh.org/#kb). The knowledge base can be queried using hypothes.is' APU (https://h.readthedocs.io/en/latest/api/); see also this list of other hypothes.is tools (https://jonudell.info/h/tools.html).

Stretch goal: More generally consolidating research discussions and link researchers to similar discussions going on in different platforms, facilitating quicker research collaborations = A search engine that can filter, retrieve, and categorise relevant content from identified research forums (e.g., #academictwitter, SciBeh reddits). Any tools for the job welcome: machine learning, text processing, NLP techniques. We have three subreddits (https://scibeh.org/#forum) that can be used to test the engine to start off; other hackathon teams are working to identify relevant forums that could feed more content in at a more developed stage.

Collaboration tools for this hackathon: Whiteboard (http://bit.ly/scibeh-kb) | Summary page | Twist channel (https://twist.com/a/131368/ch/391926/) | zoom meeting room: Monday 9th (https://us02web.zoom.us/j/76820684698?pwd=NFVKQ2xSR2p3QWc5N3hjMGJrNmUxZz09) & Tuesday 10th (https://us02web.zoom.us/j/82048334570?pwd=bklFeEZmWko4WDd1dDh1Y3FuMFF2Zz09) | Reddit discussion (https://www.reddit.com/r/BehSciAsk/comments/jkz7jx/workshop_hackathon_research_engine_search_engine/)